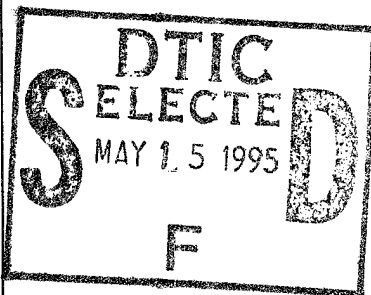


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# Resourcing and Training Readiness: An Integrated Forecasting Methodology



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## **ABSTRACT**

### **RESOURCING AND TRAINING READINESS: AN INTEGRATED FORECASTING METHODOLOGY**

Daniel J. Bonney

With continuing pressure on the military to reduce expenditures, a clear understanding of the relationship between resources and readiness is essential if resources are to be allocated efficiently. Current Army funding and readiness reporting systems fail to recognize the cyclical nature of training readiness over time or predict expected future readiness.

An integrated forecasting methodology is proposed that allows units to forecast readiness based on resource impacts on their unconstrained annual training plans. As resources are reduced, units cannot execute all events. Based on these now constrained training plans, units can determine projected training assessments and predict future readiness levels.

This methodology could easily be incorporated into existing Army training management and readiness reporting doctrine. While other, more objective solutions have been proposed, these may reduce operational flexibility and limit initiative at battalion level. The proposed integrated forecasting methodology provides a common framework for commanders at all levels to understand and agree on the impact of resourcing on future readiness.

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## **ABSTRACT**

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With continuing pressure on the military to reduce expenditures, a clear understanding of the relationship between resources and readiness is essential if resources are to be allocated efficiently. Current Army funding and readiness reporting systems fail to recognize the cyclical nature of training readiness over time or predict expected future readiness.

An integrated forecasting methodology is proposed that allows units to forecast readiness based on resource impacts on their unconstrained annual training plans. As resources are reduced, units cannot execute all events. Based on these now constrained training plans, units can determine projected training assessments and predict future readiness levels.

This methodology could easily be incorporated into existing Army training management and readiness reporting doctrine. While other, more objective solutions have been proposed, these may reduce operational flexibility and limit initiative at battalion level. The proposed integrated forecasting methodology provides a common framework for commanders at all levels to understand and agree on the impact of resourcing on future readiness.

## WHY MODEL READINESS?

Since the breakup of the Soviet Union in 1989, both the public and the Congress have relentlessly pressured the military to generate the "peace dividend". Public perception of a reduced threat raises expectations of savings which can be applied elsewhere. Historically, American military leadership's greatest challenge at the conclusion of other recent conflicts has been to maintain readiness, a measure of units' ability to successfully complete operational tasks, in the face of pressures to economize.

Ever mindful of the lessons of Korea's Task Force Smith<sup>1</sup> and the "hollow Army" of the post-Vietnam years, the Army developed and carried out its "build down plan" focusing on sustaining readiness as it reduced force structure. While planned reductions cut both force structure and procurement, unforecast peace operations and short range budget goals forced the Army to use Operations and Maintenance (O&M or P2) accounts as the primary short term source of funds. While the debate on end strength and force structure continues, there is no doubt the combined pressures of a decreased budget, base realignments, and unforeseen deployments have reduced the Army's financial flexibility.

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<sup>1</sup> Task Force Smith was the first American force to meet the advancing North Korean Army in July 1950. The poor performance of this force has often been cited to support continued expenditures for readiness by the Army's Chief of Staff, General Gordon R. Sullivan.

In recognition of the potential impact of the drawdown on unit readiness, the Department of Defense (DOD), in May of 1993, chartered the Defense Science Board Task Force on Readiness to examine readiness "management and oversight processes."<sup>2</sup> In their report, the board recommends actions to "develop and improve the set of analytical models . . . to help better understand the relationship between funding allocation decisions and future force readiness."<sup>3</sup> As the Secretary of Defense showed in November 1994, linking readiness to financial resources has become a powerful tool in gaining the attention of the political leadership and ultimately retaining the resources required to sustain active force readiness in a severely constrained fiscal environment.<sup>4</sup>

Again in January of 1995, General John Shalikashvili, Chairman of the Joint Chiefs, visited the hill to reinforce the DOD request for supplemental operational funds to

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<sup>2</sup> John Deutch, "Terms of Reference -- Defense Science Board Task Force on Readiness," Memorandum for Chairman, Defense Science Board, Office of the Under Secretary of Defense, 19 May 1993.

<sup>3</sup> Edward C. Meyer, et al, *Defense Science Board Task Force on Readiness Final Report*, Office of the Under Secretary of Defense for Acquisition and Technology, (Washington, D.C., 1994), iii.

<sup>4</sup> On 15 November 1994, DOD released a letter from the Secretary of Defense to the chairman of the House Appropriations Committee's defense sub-committee stating that three of the Army's later deploying divisions were rated less than fully combat ready. Over the next month, political interest intensified lead by the incoming Republican majority. This pressure culminated in President Clinton's public announcement, made to the media at the White House and attended by the Joint Chiefs of Staff, of a proposed \$25 billion increase in defense spending to sustain readiness.

prevent a further degradation in readiness.<sup>5</sup> Given the current intense pressure to avoid expansion of the deficit, the House responded with budget cuts to other military and domestic programs<sup>6</sup> with the Senate approving only reprogramming of defense funds.<sup>7</sup> In the long run, offsetting cuts to longer term weapons programs may reduce already threadbare procurement accounts and reduce future capabilities.<sup>8</sup> Clearly, understanding the relationship between unit readiness and funding is pivotal in optimizing both the short and long term capabilities of the Army in the post-Cold War era.

## OVERVIEW

A brief examination of the current systems for P2 budgeting and readiness reporting highlights several disconnects between these key processes. The Army is considering several initiatives to resolve the issues, but its approach provides the potential for new

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<sup>5</sup> Rick Maze, "Key Republicans Far Apart on Funding," *Army Times*, 6 February 1995, 16.

<sup>6</sup> Dana Priest, "Defense Spending Increase Advances," *Washington Post*, 11 February 1995.

<sup>7</sup> Jim Wolfe, "Senate Approves \$1.9 Billion," *Army Times*, 13 March 1995, 19.

<sup>8</sup> William W. Kaufmann, "Hollow Forces," *The Brookings Review* 12, no.4 (Fall 1994): 24-29. Mr. Kaufmann argues that to optimize future readiness we must balance current readiness concerns against joint force structure and procurement of new systems. Current analytic tools do not allow direct comparisons; the opportunity cost of spending to support current readiness cannot be quantified.



reporting discrepancies without improving report accuracy. Given the shortfalls of both the current and proposed methods, this paper will examine a sample battalion, the seminal echelon for both O&M expenditures and readiness reports, and develop a model that shows how training readiness varies over time as a function of funding. Since institutional factors affect the predictability of every organizational process, an examination of these factors will show that the model developed in this paper provides a promising framework for considering training readiness and reducing discrepancies between expected and reported readiness.

## **CURRENT PROCESSES**

### **OMA BUDGET BUILDING**

The Army builds its budget to obtain authorization and appropriations for a single year period. Funds to support military personnel, major construction, and new equipment procurement actions are included outside the P2 accounts, removing them from the concern of the tactical commander. The P2 account includes all funds to sustain the readiness of the existing force for the year; this single account includes funds to support direct training execution and funds to support other per capita recurring costs. OPTEMPO mileage, or the projected mileage used by the vehicles in execution of each unit's training strategy, is the key management tool used by the

Army in figuring out the direct costs of training.<sup>9</sup>

During the mid-1980s, the Army developed Battalion Level Training Models (BLTM) as a means to project direct OPTEMPO funding requirements. Each BLTM identifies the key items of equipment for each type battalion and specifies the number of miles each item of equipment must be operated annually to sustain training readiness. For armor battalions, the Army initially estimated that each tank would need to drive 850 miles annually in order to accomplish all of the training tasks necessary to maintain a continuous fully combat ready status. Based on subsequent experience and the introduction of the Unit Conduct of Fire (UCOF) training simulator, the Army reduced this figure to 800 miles.<sup>10</sup> Most Army divisions and corps worldwide currently use the BLTM models as the baseline for building the annual P2 budget. The Army prepares its annual budget and defends O&M funding using these estimates. The 800-mile OPTEMPO figure has attained almost mystical significance without most of its users fully understanding its origin or rationale; many unit commanders believe that their units cannot sustain a satisfactory level of readiness with less than 800 miles OPTEMPO.

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<sup>9</sup> For aviation units, the Army allocates funds based on the number of flying hours required to sustain both crew and unit training proficiency. For the purpose of this report, "Flying Hours" as a budgeting tool can be considered to be equivalent to ground vehicle OPTEMPO.

<sup>10</sup> Information regarding the development of BLTM was obtained from Mr. Joel Fleck of CACI, Inc. which originally developed the model for the Army.

Direct OPTEMPO reflects all costs required to operate the vehicle fleet for each unit and is apportioned to both tactical and support elements. Tactical units receive funds for fuel and organizational level repairs while support units are resourced for higher echelon repairs. Indirect OPTEMPO includes all other readiness related costs that will be incurred independent of vehicle mileage. The Army Budget Office combines the estimates of direct and indirect OPTEMPO using the Training Resource Model (TRM) to find the estimated total cost in dollars to execute the training program for a year.<sup>11</sup>

It is apparent from the simplified explanation offered above, that there is a lack of consistency with reported or expected readiness. The budget cycle is annual while units generally base their training programs on eighteen months between major cost driving events. Availability of training time at the combat training centers drives unit schedules rather than fiscal concerns. Each major command and post has unique training challenges and associated costs so the TRM must rely on historical demands. In practice, brigade and battalion fiscal and training management procedures bear little relationship to the models used to build the P2 budget.<sup>12</sup> While some divisions manage vehicle miles, many allocate and manage dollars rather than miles to provide

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<sup>11</sup> P2 budget procedures were reviewed with managers who had recently served in the Army budget office working on O&M accounts.

<sup>12</sup> Department of the Army Inspector General Inspections Division, "DAIG Special Assessment of Active and Reserve Component Training," Briefing to Chief of Staff, Army, Washington, D.C., 26 January 1995. This briefing states that the resource picture is confusing with some brigade and higher level commanders reporting adequate funds but many battalion level commanders reporting real shortages.

fiscal flexibility to commanders at subordinate echelons. Funds to support Division and Corps level simulation exercises, which do not include combat vehicles are paid for with direct OPTEMPO funds. At the battalion level, actual vehicle mileage for training falls far short of BLTM predictions without corresponding decreases in Readiness Condition (REDCON). According to their most recent assessment, the General Accounting Office (GAO) believes that the Army OPTEMPO system is inefficient and that: training funds are being diverted to uses other than readiness, funds can be cut without a corresponding reduction in unit readiness, and OPTEMPO funds must be fenced to ensure execution at the unit level.<sup>13</sup> While the Army contests fencing and additional training cuts, the diversion of direct OPTEMPO funds to support quality of life programs is widespread and publicly acknowledged.<sup>14</sup>

## READINESS REPORTING

Fundamental concepts of the Army readiness reporting system under AR 220-1 have not changed in many years. Currently units report their readiness based on the lowest rating of four areas: personnel status, equipment on hand, equipment status

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<sup>13</sup> General Accounting Office, *Military Readiness: DOD Needs to Develop a More Comprehensive Measurement System*, GAO/NSIAD-95-29, Washington, D.C., October 1994.

<sup>14</sup> Rick Atkinson, "U.S. Troops In Europe Slip In Readiness," *Washington Post*, 8 December 1994. General David M. Maddox, the Army's former commander in chief in Europe, stated that he has "consistently diverted money from training because I have been consistently underfunded in taking care of my soldiers."

and training readiness.<sup>15</sup> Except for training readiness, all these areas can be quantitatively measured and the rating criteria are generally accepted. The training rating is a product of the commander's judgment and his estimate of how much time would be required to make the unit fully combat ready. While each commander may subjectively rate the impact of resource shortfalls on his readiness, there is no empirical relationship to the training rating.

Recognizing the limitations of this system, the Army plans to revise the readiness reporting system. Modifications include linking each unit's training assessment with percentages of Mission Essential Task (METL) proficiency and event execution within strictly defined timeframes. Installations, besides tactical units, would report readiness for the first time to prove the need for continued indirect OPTEMPO funding.<sup>16</sup>

The current readiness reporting system fails to establish a solid linkage between resources and readiness. The Army's revised system, while correctly identifying a linkage between METL proficiency and readiness, views readiness as a linear function of METL assessment and event execution. Neither system recognizes either the

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<sup>15</sup> Department of the Army, *Unit Status Reporting, AR 220-1*, (Washington, D.C.: GPO, 1986). Unit Readiness Condition (REDCON) ranges from fully combat ready (C1) to not combat ready (C4). This regulation contains procedural instructions for readiness reporting by all tactical Army units. The Army USR system interfaces with the JCS Status of Resources and Training System (SORTS).

<sup>16</sup> Department of the Army, Office of the U.S. Army Deputy Chief of Staff for Operations & Plans, Training Directorate (DAMO-TR), "OPTEMPO to Operational Readiness," Briefing to Secretary of the Army, 23 November 1994.

cyclical nature of training readiness over time or attempts to predict expected future readiness. The model presented below provides a framework that addresses these shortfalls.

## **AN INTEGRATED FORECASTING MODEL**

### **METHODOLOGY**

Since the basis for all readiness reporting begins at battalion level, the model uses a single maneuver battalion as the basis for analysis. Based on current doctrine, the battalion Mission Essential Task List (METL) is the focus for all training assessments and resourcing. In this model, the unit establishes a sample METL and develops an unconstrained prioritized training strategy based on 800 miles of OPTEMPO. Based on reduced availability of OPTEMPO funding, the unit commander deletes training events and adjusts his projections for future METL proficiency. Ultimately, by linking this training assessment to training readiness ratings, the unit commander can establish the relationship between OPTEMPO and training ratings over time.

### **ASSUMPTIONS**

For maneuver battalions, the BLTM predicts units resourced at 800 miles OPTEMPO should maintain continuous readiness ratings of C-1, fully combat ready. While both the Army and the GAO agree that most BLTMs need updating to generate more realistic OPTEMPO levels, this paper will assume this level is correct as a

starting point to demonstrate the proposed integrating methodology. After nearly a decade of use, the Army, DOD, and Congress associate 800 miles with an acceptable level of combat readiness. This study assumes that training proficiency of a unit resourced at 800 miles will assess all METL tasks at a proficiency of "T" (fully trained) at all times.<sup>17</sup> To simplify the model, this study assumes that, at least at battalion level, all P2 fund expenditures support METL related training and that all OPTEMPO costs can be directly related to specific training events within each unit's training strategy.

## A SAMPLE BATTALION

The sample unit is a maneuver battalion stationed in U.S. Army Europe (USAREUR).<sup>18</sup> As an ALO 1 unit<sup>19</sup>, this battalion's goal is to sustain maximum combat readiness. There are no imposed supply constraints or outstanding resource requirements that reduce the ability of the battalion to train. As a USAREUR unit,

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<sup>17</sup> In recognition of increased use of training simulations, the Army is revising OPTEMPO thresholds to lower levels. In the absence of an alternative starting point for the example unit, the mythical "800 miles OPTEMPO" is used strictly as a baseline for demonstrating the proposed methodology.

<sup>18</sup> Department of the Army, Headquarters, V U.S. Corps (Multinational), *FY95 Command Training Guidance*, (Frankfurt, FRG, 1994). Considerations for the sample battalion directly reflect current practices in USAREUR's V Corps which comply with USAREUR Reg 350-1, *USAREUR Training Directive* (Draft).

<sup>19</sup> Each unit has a specified Authorized Level of Organization (ALO) which determines the fill of personnel in peacetime. Levels range from ALO 1 for full strength units to ALO 4 for cadre units. The impact of ALO on readiness reporting is also discussed in AR 220-1.

- **TRANSITION TO OPERATIONS**
- **CONDUCT TACTICAL ROADMARCH**
- **MOVEMENT TO CONTACT**
- **ATTACK**
- **DEFEND**
- **EXECUTE PEACEKEEPING OPERATIONS**
- **SUSTAIN COMBAT POWER**

**Figure 1**  
**SAMPLE INFANTRY BATTALION METL**

many collective training requirements and "gates"<sup>20</sup> are specified in local regulations. However, these requirements and gates align closely with an unconstrained training strategy used by other similar units worldwide. The unit METL, shown at Figure 1, is similar to that of most maneuver units with a requirement to train for operations across the spectrum of conflict. Availability of OPTEMPO miles is the governing factor in how frequently the unit can conduct battle focused training.

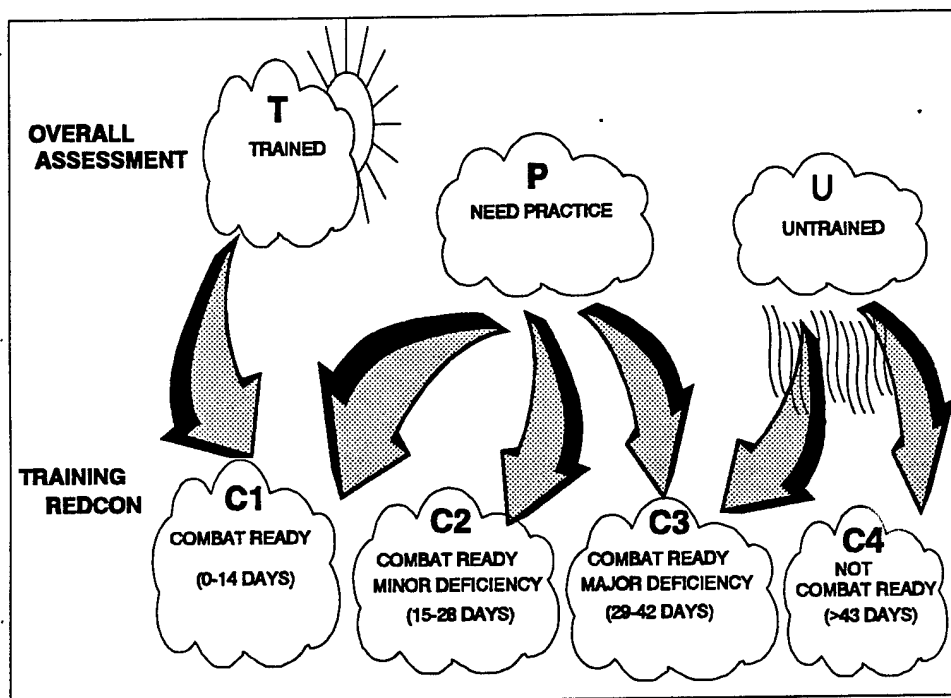
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<sup>20</sup> USAREUR training doctrine specifies sequential completion of some training requirements. Units must complete these "gates" to specified standards before they can proceed to more complex and costly collective training events at the major training centers.



## LINKING TRAINING ASSESSMENTS WITH READINESS RATINGS

METL training assessments, both in design and application, are subjective.<sup>21</sup> Commanders use them to identify strengths and weaknesses and apply these insights to the development of a future training strategy. They plan training to sustain strengths and improve weakness. Figure 2 shows the similarities of the doctrinal definitions for assessments and training readiness under the current regulation.



**Figure 2**  
**TRAINING ASSESSMENT AND READINESS GUIDANCE**

<sup>21</sup> Department of the Army, *Training the Force, FM 25-100*, (Washington, D.C.: GPO, 1988). Army doctrine emphasizes that all training should be evaluated against known standards. Unfortunately, at battalion and higher levels, full scale evaluations are too infrequent to form the basis for a complete unit assessment. Commanders use feedback from multiple sources to update their assessments between full unit evaluations.

Most units assess a task as:

- (1) "T" when only sustainment training is required
- (2) "P" when there are known training deficiencies
- (3) "U" when a task is new or has not been trained at all for a long period.

Units assessed as "T" in all METL tasks universally report a Readiness Condition (REDCON) of 1. While many C-1 units often assess some tasks as "P", they generally believe their training strategy will produce a "T" during the next quarter or that the required training to get weak tasks to a "T" can be completed in less than 14 days. Once resources fall to a level where units will only attain a "T" rating at the end of extended major training area (MTA) exercises, REDCON falls to "2" several times during the year. With additional decrements in OPTEMPO and consequently fewer training opportunities, and the expectation that assessments will never improve beyond "P", ratings may drop to "T3"<sup>22</sup>. This correlation allows for development of a direct relationship between OPTEMPO resourcing and REDCON.

## **TRAINING STRATEGY**

The goal of a battalion's training strategy is to sustain overall training readiness.

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<sup>22</sup> The author's assessment of the status of readiness reporting and training assessment is based on personal experience as a battalion commander and Deputy Chief of Staff for Operations (Training) of V Corps from July 1992 through June 1994. Trends in training assessment and reported REDCON at various OPTEMPO levels were identified through personal observation of training management reviews, analysis of readiness reports from FY 92 - FY 94 in conjunction with G-3 (Operations) staff officers, and validated during discussions with Corps staff officers and the Corps Chief of Staff.

The battalion commander selects events to provide sufficient frequency for sustainment while retaining enough flexibility to improve proficiency in METL tasks rated less than "T". For USAREUR units, the primary facility constraints are the limitations on full scale battalion maneuver and full caliber crew gunnery qualification; these events may only be conducted at the MTAs at Grafenwoehr and Hohenfels. Facility limitations dictate that each maneuver battalion will conduct qualifications semiannually and full scale evaluated mounted maneuver annually at the Combat Maneuver Training Center (CMTC) in Hohenfels.

To offset this limitation, units conduct mounted maneuver up to company level at their home station local training areas (LTA), train combat system crews on gunnery simulations during home station gunnery (HSG) and practice battle drills and command and control up to company level using simulations. Several battle staff simulators are also used at home station; coupled with higher level command post exercises (CPXs), units sustain battle staff proficiency and synchronization of all battlefield operating systems between CMTC rotations at minimal OPTEMPO cost. Given the availability of training facilities, the model reflects event frequencies and OPTEMPO miles allocation to each event up to the 800-mile level as shown in Figure 3. For simplicity, training events that do not incur significant OPTEMPO costs (small arms ranges, CPXs, etc.) have not been included. This table lists all events in priority to support the unit's training objectives. Scheduling of events is designed to sustain long term battalion level readiness given the limitations of available training facilities.

<b>PRIORITY</b>	<b>EVENT</b>	<b>EVENT MILES</b>	<b>CUMULATIVE MILES</b>	<b>SCHEDULE</b>	
	MAINTENANCE	10		ALL	
1	CMTC	260	270	1 QTR	
2	GTA I (Linked)	130	400	1 QTR	
3	HSG	15	415	1 QTR	
4	GTA II (50%)	140	555	3 QTR	
5	HSG	15	570	3 QTR	<b>OPTEMPO "CUT" LEVELS</b>
6	CO FTX	25	595	1 QTR	
7	PLT FTX	25	620	4 QTR	
8	CO FTX	25	645	2 QTR	
9	PLT FTX	25	670	3 QTR	
					<b>620</b>
10	PLT FTX	25	695	1 QTR	
11	HSG	15	710	2 QTR	
					<b>670</b>
12	HSG	15	725	4 QTR	
13	CO FTX	25	750	3 QTR	
					<b>710</b>
14	PLT FTX	25	775	2 QTR	
15	CO FTX	25	800	4 QTR	
					<b>750</b>
					<b>800</b>

**Figure 3**  
**PRIORITIZED TRAINING EVENTS**

The example training strategy closely follows the actual application of OPTEMPO mileage for maneuver units in USAREUR. At OPTEMPO levels below 800 miles, events will be canceled according to priorities shown in the figure. Cut lines for various levels of annual OPTEMPO reduce event frequency; those events that will be dropped if resourcing falls below 800 miles OPTEMPO correspond with training strategies employed by USAREUR units during the last several years.

## PROJECTED ASSESSMENTS

The first step in linking available resources to readiness is to project training assessments based on training strategies at different resourcing levels. Figure 4 depicts the complete model training strategy by linking METL training tasks with available resources and event frequency. Assessments are projected as an average of the commander's assessment over the course of the year. At 800 miles OPTEMPO, event frequency is high enough to sustain a "T" rating on an almost continuous basis. Due to facility limitations, several tasks, including "Conduct a Tactical Roadmarch" and "Sustain Combat Power," can only be trained effectively during the semiannual MTA deployments. The inability to train these tasks quarterly forces the average assessment to stay relatively low over the year.

At OPTEMPO levels below 800, events are lost based on the event priorities discussed above. With the event prioritization employed in this model, a unit is never forced to cancel or degrade the premier training events at the major training areas if at least 620 miles of OPTEMPO are available. Lower echelon training, focusing on crew and platoon level tasks, at the home stations is lost and the projected average assessment of task proficiency decreases. As resources decrease, proficiency in platoon and company maneuver skills is lost due to a shortfall in training at the local training areas. This reflects the degraded average assessments in the key METL tasks of movement to contact, attack and defend. At levels below 700 miles, the battalion only has resources to do limited trainup before MTA training periods and

	Training Strategy						800 ml = C1		750 ml = C1/C2		710 ml = C2/C1		670 ml = C2/C3		620 ml = C3	
	2x Main	1x CMTC	2x GTA	4x PLT FTX	4x HSG	4x Co FTX	Frequency	Assess.	Frequency	Assess.	Frequency	Assess.	Frequency	Assess.	Frequency	Assess.
Transition to War		X	X			X	1 x CMTC 2 x GTA 2 x Co FTX	T	1 x CMTC 2 x GTA 2 x Co FTX	T	1 x CMTC 2 x GTA 2 x Co FTX	T	1 x CMTC 2 x GTA 2 x Co FTX	T	1 x CMTC 2 x GTA 1 x Co FTX	T
Conduct Tactical Roadmarch		X	X				1 x CMTC 2 x GTA	T-	1 x CMTC 2 x GTA	T-	1 x CMTC 2 x GTA	T-	1 x CMTC 2 x GTA	T-	1 x CMTC 2 x GTA	T-
Movement to Contact		X	X	X		X	1 x CMTC 2 x GTA 4 x PLT FTX 4 x Co FTX	T	1 x CMTC 2 x GTA 3 x PLT FTX 3 x Co FTX	T-	1 x CMTC 2 x GTA 3 x PLT FTX 2 x Co FTX	P+	1 x CMTC 2 x GTA 2 x PLT FTX 2 x Co FTX	P	1 x CMTC 2 x GTA 1 x Co FTX 1 x PLT FTX	P-
Attack		X	X	X	X	X	1 x CMTC 2 x GTA 4 x PLT FTX 4 x HSG 4 x Co FTX	T	1 x CMTC 2 x GTA 3 x PLT FTX 4 x HSG 3 x Co FTX	T	1 x CMTC 2 x GTA 3 x PLT FTX 3 x HSG 2 x Co FTX	T-	1 x CMTC 2 x GTA 2 x PLT FTX 2 x HSG 2 x Co FTX	P	1 x CMTC 2 x GTA 2 x HSG 1 x Co FTX 1 x PLT FTX	P-
Defend		X	X	X	X	X	1 x CMTC 2 x GTA 4 x PLT FTX 4 x Co FTX 4 x HSG	T	1 x CMTC 2 x GTA 3 x PLT FTX 3 x Co FTX 4 x HSG	T	1 x CMTC 2 x GTA 3 x PLT FTX 2 x Co FTX 3 x HSG	T-	1 x CMTC 2 x GTA 2 x PLT FTX 2 x Co FTX 2 x HSG	P	1 x CMTC 2 x GTA 2 x HSG 1 x Co FTX 1 x PLT FTX	P-
Sustain Operations	X	X	X			X	1 x CMTC 2 x GTA 2 x Co FTX Garrison LOG OPS	T-	1 x CMTC 2 x GTA 2 x Co FTX Garrison LOG OPS	T-	1 x CMTC 2 x GTA 2 x Co FTX Garrison LOG OPS	T-	1 x CMTC 2 x GTA 2 x Co FTX Garrison LOG OPS	T-	1 x CMTC 2 x GTA 1 x Co FTX Garrison LOG OPS	P+
Execute Peacekeeping		X		X		X	1 x CMTC 4 x PLT FTX 4 x Co FTX	T	1 x CMTC 3 x PLT FTX 3 x Co FTX	T-	1 x CMTC 3 x PLT FTX 2 x Co FTX	P+	1 x CMTC 2 x PLT FTX 2 x Co FTX	P	1 x CMTC 1 x Co FTX 1 x PLT FTX	P-

Figure 4  
TRAINING STRATEGIES AND PROJECTED ASSESSMENTS

minimal sustainment training during non-MTA quarters. As a result, the major training opportunities focus on training companies and platoons rather than integrating all battlefield operating systems (BOS) in a battalion focused "graduation exercise."<sup>23</sup>

## **TRAINING READINESS PROJECTIONS**

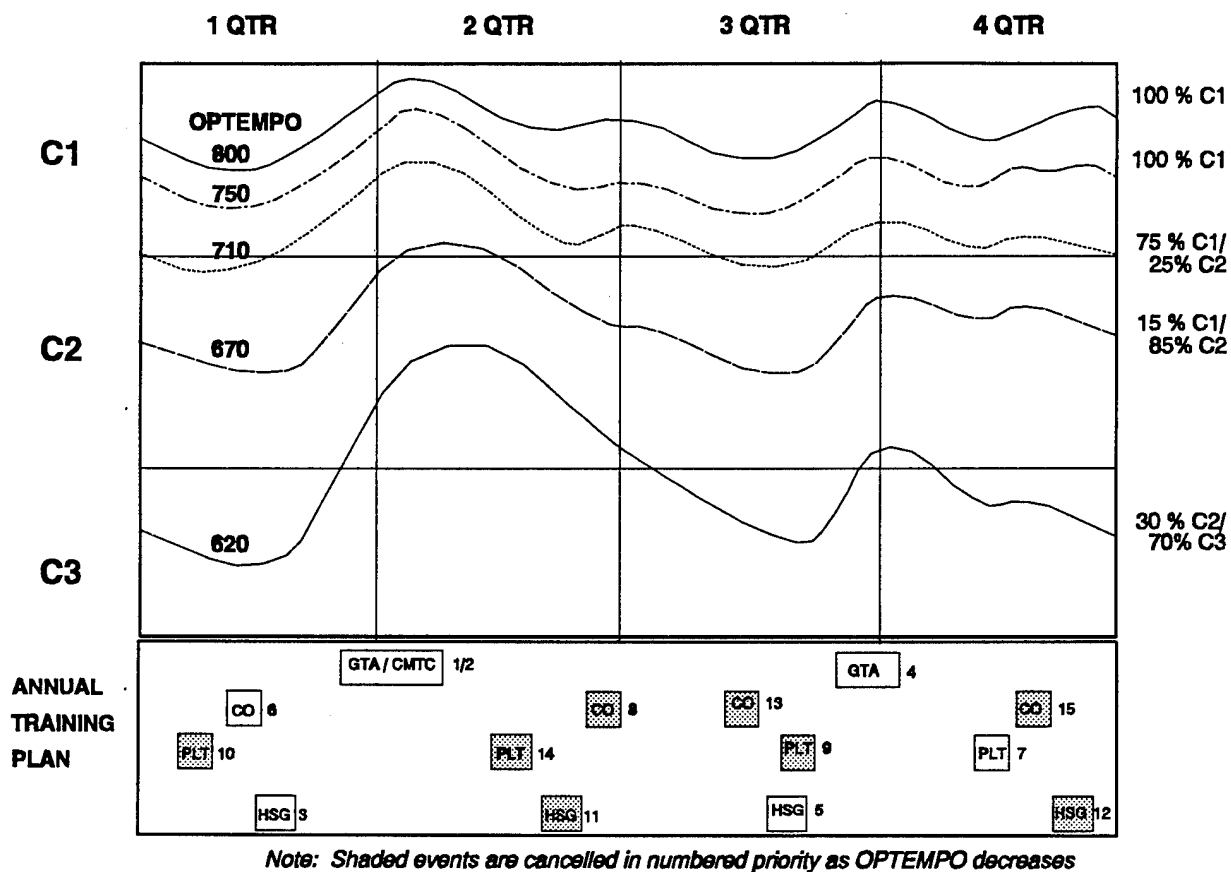
The Army universally recognizes that unit METL proficiency will vary over time. While individuals retain specific knowledge for relatively long periods of time, the complexity of collective skills and the turbulent environment ensures unit proficiency will be lost quickly if tasks are not practiced. Many factors influence each unit's proficiency and there is virtually no data available that considers the relative rates of collective learning and unlearning. However, it is generally accepted that units gain the most proficiency during intense training activity at the MTAs. Proficiency also increases during collective training at home station, but its impact on battalion training readiness is less since only platoon and company level tasks can be completely trained.

Historical data indicates that about 25% of units will report REDCON "2" at the

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<sup>23</sup> USAREUR views Hohenfels (CMTC) densities as the premier training event for maneuver battalions. Prevailing wisdom dictates that units who arrive at CMTC at a high level of training proficiency can gain the most benefit from the fully instrumented environment. During force on force training at CMTC, units use laser weapons simulators for accurate combat results. Trained observer/controllers continuously monitor all training with event recordings used for later playback and critique.

700-mile OPTEMPO level.<sup>24</sup> Coupled with the assumption that 800 miles will result in a continuous REDCON of "1", it is possible to display unit collective proficiency over the year based on the decremented training strategy that reduces LTA training between MTA densities at lower OPTEMPO levels. Figure 5 graphically depicts potential readiness fluctuations as events are lost due to decreased funding.



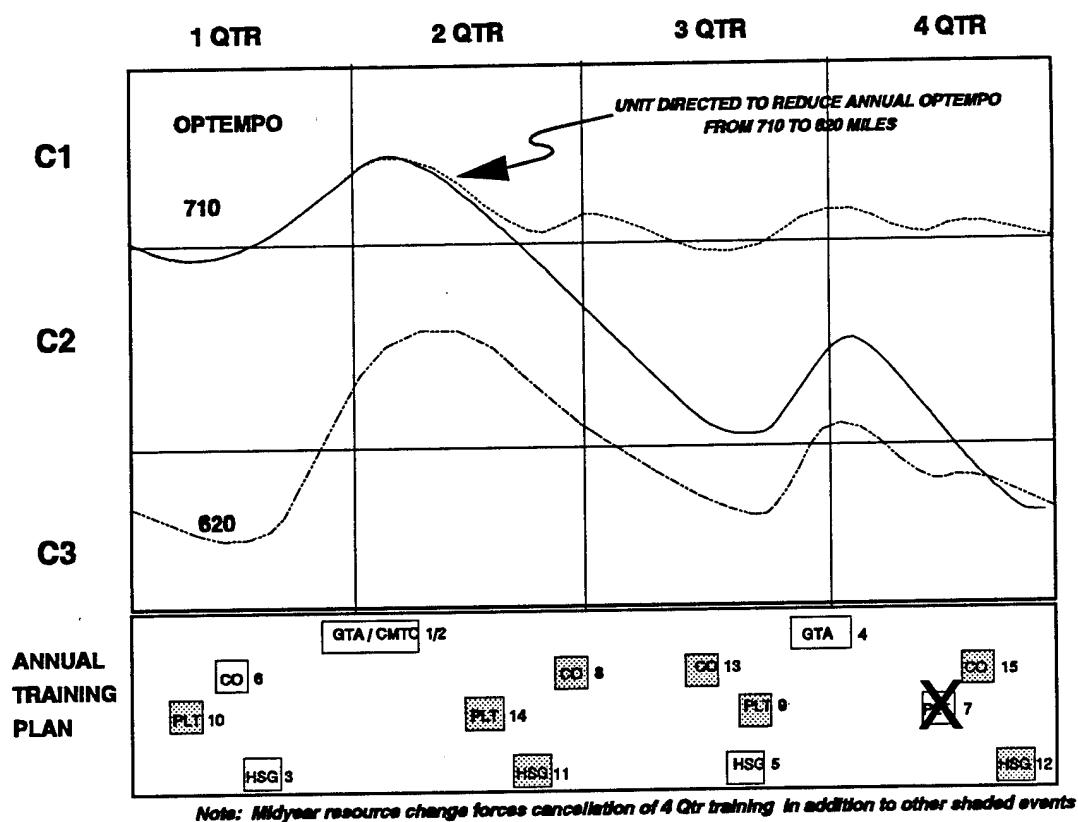
**Figure 5**  
**STEADY STATE REDCON BASED ON TRAINING STRATEGY**

<sup>24</sup> An undocumented review of readiness reports in V Corps from FY92 through second quarter FY94 conducted by the author and officers in Corps G-3 Operations forms the basis for these figures.



While discussions with several battalion commanders indicate that these curves "look about right," validation of the curves with historical data would be difficult if not impossible. Rarely do units maintain a constant resource target during a single year let alone during successive years. Once a battalion advises its division that its readiness rating may drop, the division commander frequently orders that additional resources, if available, be reprogrammed from another less critical area or unit.

An examination of what happens to readiness as the result of a midyear decrement



**Figure 6**  
**EFFECT OF MID-YEAR OPTEMPO CHANGE**

provides further insights into the dynamics of readiness. Figure 6 shows the steady state readiness curves for two OPTEMPO levels. The sample battalion begins the training year expecting funding at 720 miles. If the battalion is directed to reduce OPTEMPO to 620 miles at the completion of its first MTA period, the commander modifies the training strategy immediately; sustainment training during 2nd and 3rd quarters is cancelled to the 620 mile level. While the battalion can still conduct its second MTA training, it must also cancel 4th quarter sustainment training since they had trained hard during the 1st quarter under the original training strategy. Ultimately, unit readiness, depicted by the center readiness curve, falls to steady state at the 620 mile OPTEMPO level, but it takes over six months to stabilize.

#### **WHY REPORTED READINESS DOESN'T VARY**

For anyone familiar with the Army's training management doctrine, the model presented above should appear completely logical. The fully resourced unit readiness curve stays in the "band of excellence" discussed in FM 25-100.<sup>25</sup> Unfortunately, reported readiness often fails to follow the patterns depicted in Figures 5 and 6 at constrained resourcing levels. Institutional pressures cause reported REDCON to vary widely from the logical cyclical patterns presented in the model.

Most commanders are reluctant to downgrade readiness. With a primary mission of

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<sup>25</sup> Department of the Army, *Training the Force, FM 25-100*, (Washington, D.C.: GPO, 1988) 1-5.

sustaining peacetime readiness, they perceive reporting a REDCON less than their ALO as failure. For a generation of battalion level commanders, used to the ample budgets of the mid-80s, anything less than C-1 in training is almost unthinkable. It will take some time for the Army to adjust to the new fiscal realities and the idea of tiered readiness in the active forces.<sup>26</sup> It is much easier to brief a "C-1" report no matter what the situation is. The training readiness definitions in AR 220-1 are very vague. The "days to train" limits associated with training ratings are clear enough, but in application most commanders assume that once alerted, unlimited resources and access to training facilities will be provided. This may not be the case. Commanders who have not participated in an actual full unit deployment do not fully comprehend the impact of other tasks on their predeployment training plan.

Mindful of post-Vietnam ethical issues, commanders above battalion level are often reluctant to influence reports by subordinate units to maintain the integrity of the system. Unfortunately, it is just this reluctance that leads to questions about the validity of reports when resources change. Subordinate commanders, lacking a clear definition of the resources required to stay in the "band of excellence" fall back on experience factors, the mystical 800 miles, or report what worked last month.

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<sup>26</sup> John Deutch, "In Military Readiness, Money Isn't Everything," *Washington Post*, 22 December 1994. In this letter to the editor Mr. Deutch wrote: "Readiness must be managed like everything else, taking into account unit rotations and readiness appropriate to plans of the Joint Chief of Staff." The authorized levels of organizations establish fill priorities for personnel and equipment but fail to address funding priorities.

Because of these institutional factors, reported REDCONs tend to remain abnormally high until battalion level commanders perceive that higher level commanders anticipate reduced readiness due to resource shortfalls. Lacking a common, more rigorous methodology, reported REDCON tends to decrease sharply once cuts in OPTEMPO are announced to "send a signal" up the chain of command.

## **THE ROAD AHEAD**

### **CONCLUSIONS**

All current efforts to examine the relationship between readiness and resourcing recognize that METL assessment and execution of planned training events are linked to reported readiness. But training readiness is a function of many variables and changes over time. Lacking complete information on future operations, both assessment and thus reported readiness must remain subjective measurements. Assessments are only valid in the mind of the commander making the assessment since only he knows the assumptions and information sources that support his analysis. The key to success of any system that attempts to relate readiness with resources lies in that system's ability to cause a meeting of the minds between commanders at successive echelons. Methods to achieve agreement on missions, performance standards, resource requirements, and reported readiness must be institutionalized so that forging agreement is a flexible process that can be applied as commanders, missions, and situations change.

## **MODEL LIMITATIONS**

On the surface, it may appear that the curves depicted on Figures 5 and 6 could be quantified using operations research techniques. Given the number of variables associated with existing historical data it is doubtful that such analysis would be helpful. Resourcing levels and training policies have changed too frequently in the past to allow definitive quantitative analysis of readiness reporting. Very little theory, let alone quantitative data, is available on rates of organizational learning and unlearning. Optimized training strategies for like units vary based on local facilities, missions, priorities and unit culture. Quantifying the subjective variables is virtually impossible. While mentioned in the assumptions, it must be emphasized that the OPTEMPO levels and readiness bands in the example, while based on recent USAREUR experience, are baselined using the traditional 800-mile figure. It must be noted that a completely objective, quantitative prediction is not the primary goal of using this model. The benefit of this model is to provide a common framework for commanders at all levels to understand and agree on the impact of resourcing on future readiness.

## **IMPLEMENTATION**

The Army's training management system currently addresses METL approval, long range planning and assessment in sufficient detail and the process is universally applied in the field. Unfortunately, consideration of resource issues is usually limited to the last slide of the training management brief and only addressed if there is a

known shortfall. Current training management doctrine does not address readiness reporting at all. Use of the proposed integrated methodology demonstrated above could be quickly implemented by incorporating the concepts into training management doctrine; teaching the idea along with training management in advanced officer and precommand courses, and including readiness projections in training management reviews.

## **RECOMMENDATIONS**

Implementation of the following recommendations will improve the Army's ability to more fully integrate resourcing with readiness in the near term.

- Incorporate the integrating model described in this paper into current training doctrine as described above.
- Continue current efforts to update the BLTM models for use in service and major command level resource planning. Provide baseline figures to the field, with supporting assumptions, only as estimates. These figures can constitute service level communication of expectations as long as they are updated with feedback from the field.
- Complete development and publicize the resource implications of the tiered readiness system to active units. Those units that cannot be resourced to maintain a

continuous C-1 rating must know what the Army expects them to accomplish. Failure to do this threatens the long term integrity of the readiness reporting system.

- Revise the readiness reporting system to reference the integrating methodology as described in training management doctrine. Inclusion of installation readiness impacts may provide a more accurate picture of the benefits of indirect OPTEMPO at the risk of continued pressure from Congress to fence direct OPTEMPO funds. "Days to Train" is useful in planning only if assumptions for commanders are included in the reporting regulation. The Army should consider using "Days to Prepare for Deployment" to provide a more valid subjective measurement. All units should report projected training readiness for the next reporting period to reinforce application of the integrating model regularly.

## **SUMMARY**

Trainers and resource managers have long recognized a need for a better methodology to link resources and readiness. This desire is now an imperative if the Army is to retain the resources it needs to prepare for an expanding range of missions and optimize their use in a political environment of greater scrutiny and pressures to cut costs. However, we must resist the temptation to over-centralize control to satisfy the analytical needs of the bureaucracy. Any approach that relies on a series of checklists controlled at a higher headquarters reduces flexibility with a concurrent risk

of obsolescence as missions and conditions change.<sup>27</sup> Gains in reduced uncertainty must be weighed against negative impacts on institutional culture.

Finally, training readiness is an attempt to measure a unit's ability to perform under the uncertain conditions of combat; *training readiness is not an end in itself*. The Army's system of training management, while emphasizing training to standard, focuses on decentralized planning and execution. This process allows for both optimized training strategies and the development of future training managers skilled in the making of new training strategies as new missions, tasks, and conditions are specified or implied. While training readiness is a function of METL assessment, the linkage must remain subjective. The methodology proposed in this paper closes the gap between resources and readiness projections using a common thought process to improve communications within the chain of command. Resource requirements and readiness expectations can be routinely agreed between echelons, strengthening both the training management and readiness reporting systems without threatening their integrity. We must continue to develop our institutional systems to exploit the true source of American military strength, the initiative and creativity of every soldier.

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<sup>27</sup> H. Hugh Shelton and Steven C. Sifers, "Standardizing Training Assessment," *Military Review* 74, no.10 (October 94): 4-13. This article describes an objective training assessment methodology being used at Fort Bragg, NC. This process (STARS) recognizes linkages similar to those in this paper's proposed method. The authors point out that many of the benefits of implementing STARS lie in the cooperative efforts of the commanders who participated in devising the initial checklists.



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